

ABSTRACT

A projection display apparatus employs a plurality of projectors **1, 2, 3** and combines images from the projectors into a large composite image on a nonplanar screen such as a concave spherical screen **10**. The composite image is of high quality and high resolution and is normally visible by audience. The projectors **1, 2, 3** receive video signals through a geometric conversion unit and project and display images on the nonplanar screen **10** according to the received video signals. The geometric conversion unit transforms the field angles of images to display, according to relationships among the positions of the projectors **1, 2, 3**, the positions of areas of the nonplanar screen **10** to which the projectors project images, and the position of an audience, thereby compensating distortions of images caused by the nonplanar shape of the screen **10**.